

Correspondence

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TO THE EDITOR Genitourinary Medicine

Effect of ofloxacin on *Treponema pallidum* in incubating experimental syphilis

Sir,

Ofloxacin is a new quinolone antibacterial compound for the oral treatment of systemic infections. It has rapid bactericidal activity against a wide range of Gram positive and Gram negative, aerobic, and anaerobic bacteria, including emerging pathogens (such as methicillin resistant *Staphylococcus aureus*, *Pseudomonas aeruginosa*, *Proteus rettgeri*, and *Serratia* spp).¹ It is active against *Neisseria gonorrhoeae* and other common urogenital pathogens (*Ureaplasma urealyticum*, *Chlamydia trachomatis*, *Gardnerella vaginalis*, and *Mycoplasma hominis*).^{2,5} Ofloxacin possesses good pharmacokinetics in man, with a mean peak serum concentration of 3.8 mg/l and a half life of about six hours after a single 300 mg oral dose.⁶

We report the results of animal experiments carried out to assess whether ofloxacin, used to treat urogenital infection, can delay or mask the development of simultaneously acquired incubating syphilis.

We infected intratesticularly 26 rabbits (weighing 3.3-5 kg) with 2 ml of a suspension of 2×10^7 ml of Nichols strain treponemes.⁷ Three days later, we treated 10 of the rabbits with 100 mg/kg ofloxacin (Glaxo), given as single daily oral dose, for three consecutive days. Nine rabbits were given procaine penicillin G, and seven were left untreated.

After a single dose of ofloxacin the mean peak serum concentration was 29.5 mg/l, about eight times that obtained in man after a single therapeutic oral dose of 300 mg.⁶

At the end of the experiments, three rabbits were injected intratesticularly with treponemes obtained from rabbits treated previously with ofloxacin. These rabbits were left untreated and observed during the following days.

Seven days after inoculation all the ofloxacin treated rabbits, as well as those untreated, developed syphilitic orchitis. Increasing *Treponema pallidum* haemagglutination assay (TPHA) titres appeared five to 10 days later in the ofloxacin treated and in the untreated rabbits.

Treponemes were detected in the testes of the rabbit that were killed 30 days after infection. Serological tests for syphilis in the

penicillin treated rabbits gave negative results. The three rabbits infected with treponemes obtained from rabbits previously treated with ofloxacin developed syphilitic orchitis and serological reactivity.

The results of this study show that ofloxacin does not cure incubating syphilis in the rabbit. Therefore, ofloxacin seems to have no effect on *Treponema pallidum* in experimental syphilis. If these results are confirmed in man, ofloxacin could be used to treat gonorrhoea and other urogenital infections without any risk of delaying or masking the development of simultaneously incubating syphilis.

Yours faithfully,
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TO THE EDITOR Genitourinary Medicine

Declaring cure in women with gonorrhoea

Sir,

We read with interest the recent report of a study into the number of follow up appointments that are required to ensure cure of gonorrhoea in women.¹ For comparison, we present a retrospective study of uncomplicated gonorrhoea in women attending a Glasgow genitourinary medicine clinic in 1985.

Gram stained smears were made of specimens taken from the urethra and endocervix and were examined immediately. Specimens for culture, taken from the urethra, endocervix, and rectum of all patients and from the throat of selected patients, were inoculated immediately on to non-selective and selective blood agar. Suspected colonies were identified as being *Neisseria gonorrhoeae* by rapid carbohydrate utilisation tests and the Phadebact GC Test (Pharmacia Diagnostics).

Treatment was a single oral dose of 2 g ampicillin and 1 g probenecid or 300 mg minocycline. All patients were interviewed at least once by a health adviser for counselling and contact tracing. The first follow up appointment was a week after treatment, and further follow up appointments were arranged at suitable times.

Gonorrhoea was diagnosed by culture in 265 women. The first set of cultures gave positive results in 259 women (98%) but six (2%) required two sets of cultures for diagnosis. In no case was a third set of cultures necessary to establish a diagnosis.

After treatment, at least one follow up appointment was kept by 235 women (89%). Gonorrhoea was still detected in 10 (4%); this could not be explained in three cases, but five cases were believed to be treatment failures, and reinfection was suspected in two patients. Of the 225 women with satisfactory